

|  |  |    |   |                        |                             |
|--|--|----|---|------------------------|-----------------------------|
| Substitute for form 1449A/PTO<br><br>INFORMATION DISCLOSURE<br>STATEMENT BY APPLICANT<br><br>(use as many sheets as necessary) |  |    |   | Complete if Known      |                             |
| Sheet  |  | of | 5 | Application Number     |                             |
|  |  |    |   | Filing Date            | Herewith                    |
|  |  |    |   | First Named Inventor   | Burd Mehta                  |
|  |  |    |   | Art Unit               | 1765 1637                   |
|  |  |    |   | Examiner Name          | Jennine Brown → Chris Basic |
|  |  |    |   | Attorney Docket Number | 100/03021                   |

| U.S. PATENT DOCUMENTS |          |                               |                  |   |   |
|-----------------------|----------|-------------------------------|------------------|---|---|
| Examiner Initials     | Cite No. | Document No.                  | Publication Date | Name of Patentee or Applicant of Cited Document | Pages, Columns, lines, Where Relevant Passages or Relevant Figures Appeal |
|                       |          | Number - Kind Code (if known) | MM-DD-YYYY       |   |   |
| CM/B                  | AA       | US-4390403                    | 06-28-1983       | Batchelder                                      |   |
|                       | AB       | US-4683202                    | 07-28-1987       | Mullis  |   |
|                       | AC       | US-4908112                    | 03-13-1990       | Pace  |   |
|                       | AD       | US-5126022                    | 06-30-1992       | Soane et al.                                    |   |
|                       | AE       | US-5164055                    | 11-17-1992       | Dubrow  |   |
|                       | AF       | US-5264101                    | 11-23-1993       | Demorest et al.                                 |   |
|                       | AG       | US-5426039                    | 06-20-1995       | Wallace et al.                                  |   |
|                       | AH       | US-5498392                    | 03-12-1996       | Wilding et al.                                  |   |
|                       | AI       | US-5571410                    | 11-05-1996       | Swedberg  |   |
|                       | AJ       | US-5585069                    | 12-17-1996       | Zanzucchi et al.                                |   |
|                       | AK       | US-5587128                    | 12-24-1996       | Wilding et al.                                  |   |
|                       | AL       | US-5593838                    | 01-14-1997       | Zanzucchi et al.                                |   |
|                       | AM       | US-5603351                    | 02-18-1997       | Cherukuri et al.                                |   |
|                       | AN       | US-5635358                    | 06-03-1997       | Wilding et al.                                  |   |
|                       | AO       | US-5637469                    | 06-10-1997       | Wilding et al.                                  |   |
|                       | AP       | US-5699157                    | 12-16-1997       | Parce   |   |
|                       | AQ       | US-5716825                    | 02-10-1998       | Hancock et al.                                  |   |
|                       | AR       | US-5750015                    | 05-12-1998       | Soane et al.                                    |   |
|                       | AS       | US-5770029                    | 06-23-1998       | Nelson et al.                                   |   |
|                       | AT       | US-5779868                    | 07-14-1998       | Parce et al.                                    |   |
|                       | AU       | US-5800690                    | 09-01-1998       | Chow et al.                                     |   |
|                       | AV       | US-5842787                    | 12-01-1998       | Kopf-Sill et al.                                |   |
|                       | AW       | US-5852495                    | 12-22-1998       | Parce   |   |
|                       | AX       | US-5869004                    | 02-09-1999       | Parce et al.                                    |   |
|                       | AY       | US-5874212                    | 02-23-1999       | Prockop et al.                                  |   |
| ✓                     | AZ       | US-5876675                    | 03-02-1999       | Kennedy   |   |
| ✓                     | BA       | US-5880071                    | 03-09-1999       | Parce et al.                                    |   |

|                    |  |                 |        |
|--------------------|--|-----------------|--------|
| Examiner Signature |  | Date Considered | 6/7/05 |
|--------------------|--|-----------------|--------|

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

|  |   |    |                      |   |           |
|--|---|----|----------------------|---|-----------|
| Substitute for form 1449A/PTO  |   |    | Complete if Known    |   |           |
| <b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br><br><i>(use as many sheets as necessary)</i> |   |    | Application Number   |   |           |
|  |   |    | Filing Date          | <b>Herewith</b>                         |           |
|  |   |    | First Named Inventor | <b>Burd Mehta</b>                       |           |
|  |   |    | Art Unit             | 1755 1637                               |           |
|  |   |    | Examiner Name        | <b>Jennine Brown</b> <i>Chris Desio</i> |           |
| Sheet  | 2 | of | 5                    | Attorney Docket Number                  | 100/03021 |

|            |    |            |            |                  |  |
|------------|----|------------|------------|------------------|--|
| <i>CMS</i> | BB | US-5882465 | 03-16-1999 | McReynolds       |  |
|            | BC | US-5885470 | 03-23-1999 | Parce et al.     |  |
|            | BD | US-5942443 | 08-24-1999 | Parce et al.     |  |
|            | BE | US-5948227 | 09-07-1999 | Dubrow           |  |
|            | BF | US-5955028 | 09-21-1999 | Chow             |  |
|            | BG | US-5957579 | 09-28-1999 | Kopf-Sill et al. |  |
|            | BH | US-5958203 | 09-28-1999 | Parce et al.     |  |
|            | BI | US-5958694 | 09-28-1999 | Nikiforov        |  |
|            | BJ | US-5959291 | 09-28-1999 | Jensen           |  |
|            | BK | US-5964995 | 10-12-1999 | Nikiforov et al. |  |
|            | BL | US-5965001 | 10-12-1999 | Chow et al.      |  |
|            | BM | US-5965410 | 10-12-1999 | Chow et al.      |  |
|            | BN | US-5972187 | 10-26-1999 | Parce et al.     |  |
|            | BO | US-5976336 | 11-02-1999 | Dubrow et al.    |  |
|            | BP | US-5989402 | 11-23-1999 | Chow et al.      |  |
|            | BQ | US-6001231 | 12-14-1999 | Kopf-Sill        |  |
|            | BR | US-6004515 | 12-21-1999 | Parce et al.     |  |
|            | BS | US-6007690 | 12-28-1999 | Nelson et al.    |  |
|            | BT | US-6011252 | 01-04-2000 | Jensen           |  |
|            | BU | US-6012902 | 01-11-2000 | Parce            |  |
|            | BV | US-6013166 | 01-11-2000 | Heller           |  |
|            | BW | US-6042710 | 03-28-2000 | Dubrow           |  |
|            | BX | US-6046056 | 04-04-2000 | Parce et al.     |  |
|            | BY | US-6068752 | 05-30-2000 | Dubrow et al.    |  |
|            | BZ | US-6071478 | 06-06-2000 | Chow             |  |
|            | CA | US-6074725 | 06-13-2000 | Kennedy          |  |
|            | CB | US-6080295 | 06-27-2000 | Parce et al.     |  |
|            | CC | US-6306590 | 10-23-2001 | Mehta            |  |
|            | CD | US-6445682 | 09-24-2002 | Barron           |  |

|                    |                  |                 |               |
|--------------------|------------------|-----------------|---------------|
| Examiner Signature | <i>M. D. Pal</i> | Date Considered | <i>6/7/05</i> |
|--------------------|------------------|-----------------|---------------|

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

|  |   |    |   |                        |                           |
|--|---|----|---|------------------------|---------------------------|
| Substitute for form 1449A/PTO<br><br>INFORMATION DISCLOSURE<br>STATEMENT BY APPLICANT<br><br>(use as many sheets as necessary) |   |    |   | Complete if Known      |                           |
| Sheet  | 3 | of | 5 | Application Number     |                           |
|  |   |    |   | Filing Date            | Herewith                  |
|  |   |    |   | First Named Inventor   | Burd Mehta                |
|  |   |    |   | Art Unit               | 1755 (637)                |
|  |   |    |   | Examiner Name          | Jennine Brown Chris Basic |
|  |   |    |   | Attorney Docket Number | 100/03021                 |

|  |    |                |            |                |  |
|--|----|----------------|------------|----------------|--|
|  | CE | US-6492118     | 12-10-2002 | Abrams et al.  |  |
|  | CF | US-20010035351 | 11-01-2001 | Simpson et al. |  |

| FOREIGN PATENT DOCUMENTS |          |  |                                |  |   |
|--------------------------|----------|--|--------------------------------|--|---|
| Examiner Initials        | Cite No. | Foreign Patent Document                      | Publication Date<br>MM-DD-YYYY | Name of Patentee or Applicant<br>of Cited Document | Pages, Columns, Lines,<br>Where Relevant Passages<br>or Relevant Figures Appear |
|                          |          | Country Code - Number - Kind Code (if known) |                                |  |   |
| AMR                      | CG       | WO-96/04547                                  | 02-15-1996                     | Lockheed Martin                                    |   |
|                          | CH       | WO-97/02357                                  | 01-23-1997                     | Affymetrix   |   |
|                          | CI       | WO-98/00231                                  | 01-08-1998                     | Caliper  |   |
|                          | CJ       | WO-98/00705                                  | 01-08-1998                     | Caliper  |   |
|                          | CK       | WO-98/00707                                  | 01-08-1998                     | Caliper  |   |
|                          | CL       | WO-98/02728                                  | 01-22-1998                     | Caliper  |   |
|                          | CM       | WO-98/05424                                  | 02-12-1998                     | Caliper  |   |
|                          | CN       | WO-98/22811                                  | 05-28-1998                     | Caliper  |   |
|                          | CO       | WO-98/45481                                  | 10-15-1998                     | Caliper  |   |
|                          | CP       | WO-98/45929                                  | 10-15-1998                     | Caliper  |   |
|                          | CQ       | WO-98/46438                                  | 10-22-1998                     | Caliper  |   |
|                          | CR       | WO-98/49548                                  | 11-05-1998                     | Caliper  |   |
|                          | CS       | WO-98/55852                                  | 12-10-1998                     | Caliper  |   |
|                          | CT       | WO-98/56505                                  | 12-17-1998                     | Caliper  |   |
|                          | CU       | WO-98/56956                                  | 12-17-1998                     | Caliper  |   |
|                          | CV       | WO-99/00649                                  | 01-07-1999                     | Caliper  |   |
|                          | CW       | WO-99/10735                                  | 03-04-1999                     | Caliper  |   |
|                          | CX       | WO-99/12016                                  | 03-11-1999                     | Caliper  |   |
|                          | CY       | WO-99/16162                                  | 04-01-1999                     | Caliper  |   |
|                          | CZ       | WO-99/19516                                  | 04-22-1999                     | Caliper  |   |
|                          | DA       | WO-99/19056                                  | 04-22-1999                     | Caliper  |   |
|                          | DB       | WO-99/29497                                  | 06-17-1999                     | Caliper  |   |
| V                        | DC       | WO-99/31495                                  | 06-24-1999                     | Caliper  |   |
|                          | DD       | WO-99/34205                                  | 06-24-1999                     | Caliper  |   |

|                    |  |                 |             |
|--------------------|--|-----------------|-------------|
| Examiner Signature |  | Date Considered | 163 6/07/05 |
|--------------------|--|-----------------|-------------|

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

|  |   |    |   |                        |                           |
|--|---|----|---|------------------------|---------------------------|
| Substitute for form 1449A/PTO<br><br>INFORMATION DISCLOSURE<br>STATEMENT BY APPLICANT<br><br>(use as many sheets as necessary) |   |    |   | Complete if Known      |                           |
| Sheet  | 4 | of | 5 | Application Number     |                           |
|  |   |    |   | Filing Date            | Herewith                  |
|  |   |    |   | First Named Inventor   | Burd Mehta                |
|  |   |    |   | Art Unit               | 1755 1637                 |
|  |   |    |   | Examiner Name          | Jennine Brown Chris Rasic |
|  |   |    |   | Attorney Docket Number | 100/03021                 |

|            |    |             |            |         |  |  |
|------------|----|-------------|------------|---------|--|--|
| <i>CMR</i> | DE | WO-99/43432 | 09-02-1999 | Caliper |  |  |
|            | DF | WO-99/44217 | 09-02-1999 | Caliper |  |  |
|            | DG | WO-99/56954 | 11-11-1999 | Caliper |  |  |
|            | DH | WO-99/64848 | 12-16-1999 | Caliper |  |  |
|            | DI | WO-00/09753 | 02-24-2000 | Caliper |  |  |
|            | DJ | WO-00/50172 | 08-31-2000 | Caliper |  |  |
|            | DK | WO-00/60108 | 10-12-2000 | Caliper |  |  |
|            | DL | WO-01/14064 | 03-01-2001 | Caliper |  |  |

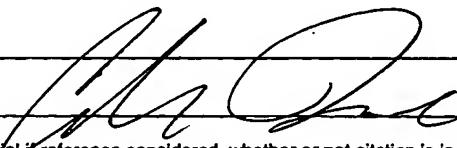
| OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS |          |   |
|---|----------|---|
| Examiner Initials                                 | Cite No. | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. |
| <i>CMR</i>  | DM       | Barringer et al. "Blunt-end and single-strand ligations by Escherichia coli Ligase: influence on an in vitro amplification scheme," <u>Gene</u> (1990) 89(1):117-122  |
|   | DN       | Beskin et al. "On the mechanism of the modular primer effect" <u>Nucl. Acids Res.</u> (1995) 23(15):2881-2885   |
|   | DO       | Cheng et al. <u>Nature</u> (1994) 369:684-685   |
|   | DP       | Cohen, C.B. et al. "A Microchip-Based Enzyme Assay for Protein Kinase A" <u>Anal. Chem.</u> (1999) 27:89-97   |
|   | DQ       | Dasgupta, P.G. et al., "Electroosmosis: A Reliable Fluid Propulsion System for Flow Injection Analysis" <u>Anal. Chem.</u> (1994) 66:1792-1798  |
|   | DR       | Effenhauser et al. "High-speed separation of antisense oligonucleotides on a micromachined capillary electrophoresis device" <u>Anal. Chem.</u> (1994) 66:2949-2953   |
|   | DS       | Fouassier et al. "Polymerisation induite sous irradiation laser visible" <u>Makromol. Chem.</u> (1991) 192:245-260  |
|   | DT       | Guatelli et al., <u>PNAS</u> (1990) 87:1874   |
|   | DU       | Hagiwara et al. "Long distance sequencer method: a novel strategy for large DNA sequencing projects" <u>Nucl. Acids Res.</u> (1996) 24(12):2460-2461  |
|   | DV       | Ike et al., "Electrostatic and Hydrodynamic Separation of DNA Fragments in Capillary Tubes" <u>Anal. Chem.</u> (1996) 68:4321-4325  |
|   | DW       | Jacobson, S.C. et al., "Fused Quartz Substrates for Microchip Electrophoresis" <u>Anal. Chem.</u> (1995) 67:2059-2063   |
|   | DX       | Kwoh et al., <u>PNAS</u> (1990) 86:1173   |

|                    |            |                 |         |
|--------------------|------------|-----------------|---------|
| Examiner Signature | <i>CMR</i> | Date Considered | GT 7/05 |
|--------------------|------------|-----------------|---------|

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

|  |          |    |                      |                                     |                  |
|--|----------|----|----------------------|-------------------------------------|------------------|
| Substitute for form 1449A/PTO  |          |    | Complete if Known    |                                     |                  |
| INFORMATION DISCLOSURE<br>STATEMENT BY APPLICANT<br><i>(use as many sheets as necessary)</i> |          |    | Application Number   |                                     |                  |
|  |          |    | Filing Date          | <b>Herewith</b>                     |                  |
|  |          |    | First Named Inventor | <b>Burd Mehta</b>                   |                  |
|  |          |    | Art Unit             | <b>1755 16 37</b>                   |                  |
|  |          |    | Examiner Name        | <b>Jennine Brown Chris B. S. 12</b> |                  |
| Sheet  | <b>5</b> | of | <b>5</b>             | Attorney Docket Number              | <b>100/03021</b> |

|             |    |   |  |
|-------------|----|---|--|
| <i>CWNS</i> | DY | Landegren et al. <u>Science</u> (1988) 241:1077-1080  |  |
|             | DZ | Lantz et al., "Detection of Pathogenic <i>Yersinia enterocolitica</i> in Enrichment Media and Pork by a Multiplex PCR: A Study of Sample Preparation and PCR-inhibitory Components" <u>Int'l. J. Food Microbiol.</u> (1998) 45:93-105                       |  |
|             | EA | Manz, A. et al., "Electroosmotic pumping and electrophoretic separations for miniaturized chemical analysis systems," <u>J. Micromech. Microeng.</u> (1994) 4:257-265   |  |
|             | EB | Neckers et al. "Photopolymerization using derivatives of fluorescent" <u>Polym. Material Sci. Eng.</u> (1989) 60:15   |  |
|             | EC | Porter et al. "Direct PCR sequencing with boronated nucleotides" <u>Nucl. Acids Res.</u> (1997) 25(8):1611-1617   |  |
|             | ED | Raja et al. "DNA sequencing using differential extension with nucleotide subsets (DENS)" <u>Nucl. Acids Res.</u> (1997) 25(4):800-805   |  |
|             | EE | Ramsey, J.M. et al., "Microfabricated chemical measurement systems" <u>Nature Med.</u> (1995) 1:1093-1096   |  |
|             | EF | Seiler, K. et al., "Planar Glass Chips for Capillary Electrophoresis: Repetitive Sample Injection, Quantitation, and Separation Efficiency" <u>Anal. Chem.</u> (1993) 65:1481-1488  |  |
|             | EG | Seiler, K. et al., "Electroosmotic Pumping and Valveless Control of Fluid Flow Within a Manifold of Capillaries on a Glass Chip" <u>Anal. Chem.</u> (1994) 66:3485-3491   |  |
|             | EH | Sooknanan et al., <u>Biotechnology</u> (1995) 13:563-564  |  |
|             | EI | Sundberg, S.A. "High-Throughput and Ultra-High-Throughput Screening: solution - and cell-based approaches" <u>Curr. Opin. Biotech.</u> (2000) 11:47-53  |  |
|             | EJ | Van Brunt <u>Biotechnology</u> (1990) 8:291-294   |  |
|             | EK | Watson et al., "Purification and Characterization of a Common Soil Component which Inhibits the Polymerase Chain Reaction," <u>Can. J. Microbiol.</u> (2000) 46:632-642   |  |
|             | EL | Wilding et al. "PCR in a silicon microstructure" <u>Clin. Chem.</u> (1994) 40(9):1815-1818  |  |
|             | EM | Witt et al., "Techniques for the Evaluation of Nucleic Acid Amplification technology Performance with Specimens Containing Interfering Substances: Efficacy of boom Methodology for Extraction of HIV-1 RNA" <u>J. Virological Methods</u> (1999) 79:97-111 |  |
| <i>✓</i>    | EN | Woolley et al. "Ultra-high-speed DNA fragment separations using microfabricated capillary array electrophoresis chips" <u>PNAS USA</u> (1994) 91:11348-11352  |  |
|             | EO | Wu et al., <u>Genomics</u> (1989) 4:560-569   |  |

|                    |   |                 |        |
|--------------------|---|-----------------|--------|
| Examiner Signature |  | Date Considered | 6/7/05 |
|--------------------|---|-----------------|--------|

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.